Exhibit A

Marked Up Version of Amended Claims-U.S. Patent Application Ser. No. 09/680,959

1 (amended). A genetically engineered mammalian cell that has been mutated by a process comprising the insertion of a recombinantly manipulated polynucleotide sequence into a gene in said genetically engineered mammalian cell wherein said gene is identifiable as corresponding to [at least one of] SEQ ID NO[S]: 125 [1-574].

2. The genetically engineered mammalian cell of Claim 1, wherein said cell is murine.

3. A cell according to Claim 2, wherein said cell is an embryonic stem cell.

4. The genetically engineered mammalian cell of Claim 1, wherein said polynucleotide sequence is present on a viral vector.

5. A cell according to Claim 4, wherein said viral vector is a retroviral vector.

6. A cell according to Claim 4, wherein said viral vector additionally comprises regions of targeting DNA that facilitate gene targeting by homologous recombination.

7 (amended). An isolated murine embryonic stem cell line comprising an engineered retroviral gene trap vector in at least one gene comprising a polynucleotide sequence [first] disclosed in [one of] SEQ ID NO[S]: 125 [1-574].